

AMENDMENT TO THE CLAIMS

1. (Currently amended) A repetitive control device comprising:

an adder to which a compensated signal is inputted;

a feedback signal system for sequentially updating and storing an output signal from the adder, and outputting the signal to the adder;

said feedback signal system comprising,

a filter which has, as a delay element, a memory which stores signal information for one rotation of a disc into divided plural memory areas of the memory,

a gain element which multiplies an output from the filter by a value not larger than 1, and inputs the ~~resultant~~ result to the adder, and

said filter being operated using a clock signal that is equal to an operation frequency of a driving signal, or a divided frequency thereof.
2. (Original) A repetitive control device as defined in Claim 1 wherein

said filter has a register connected in parallel with the memory, and records higher-order bit data of an input signal in the memory while records lower-order bit data in the register, during a filtering process by the filter.
3. (Previously presented) A repetitive control device as defined in Claim 2 wherein

a word length of the higher-order bit data recorded in the memory is equal to a word length of data of the compensated signal that is added in the adder, or a word length of a DA converter to which the output of the adder is inputted.
4. (Previously presented) A repetitive control device as defined in Claim 1 wherein

said filter includes a low-pass filter, and uses said memory as a delay element for the low-pass filter.

5. (Previously presented) A repetitive control device as defined in Claim 1 wherein said filter is a band-pass filter comprising a low-pass filter and a high-pass filter, and uses said memory as a delay element for the low-pass filter.

6. (Currently amended) A repetitive control device including an integral term operation part of a PID servo filter, which performs an arithmetic processing using a clock signal that is equal to an operation frequency of a driving signal, or a divided frequency thereof, said integral term operation part comprising:

an adder to which a servo error signal is inputted; and

a feedback signal system for sequentially updating an output signal from the adder and inputting the signal to the adder; and

said feedback signal system comprising,

a memory in which signal information for one rotation of a disc is divided to be stored in plural memory areas, and

a gain element which multiplies an output from the memory by a value not larger than 1, and inputs the ~~resultant~~ result to the adder,

wherein, when performing an integral operation to the inputted servo error signal, the integral operation uses the memory as a delay element for the input signal.

7. (Original) An optical disc device performing recording or playback of an optical disc, which is equipped with a repetitive control device as defined in Claim 1.

8. (Original) An optical disc device performing recording or playback of an optical disc, which is equipped with a repetitive control device as defined in Claim 6.

9. (New) A repetitive control device as defined in Claim 1, wherein the driving signal corresponds to the compensated signal.